

#1-20 Due Tues / #21-40 Due Wed.

GEOMETRY HOMEWORK #64 TEST REVIEW

Form
A

ID: 1

Name _____

Due Tuesday February 11th / Wednesday February 12th Date _____ Period _____

PERFECT SQUARES:

Simplify.

CLIST!

1) $\sqrt{54x^4}$

2) $\sqrt{45x^2}$

$\sqrt{54}$ $\sqrt{\text{XXXX}}$ → 2 x's stand alone!

$\sqrt{\quad}$ $\sqrt{\quad}$

3) $6\sqrt{45b}$

4) $2\sqrt{343a^2}$

*Don't forget to multiply by 6 @ the end!

*Don't forget to multiply by 2 @ the end!

5)

$$4\sqrt{5m} \cdot 2\sqrt{15m}$$

$$8 \cdot \sqrt{75m^2}$$

8 ↓ $\sqrt{\cdot} \cdot \sqrt{\cdot} \rightarrow \sqrt{mm}$

6)

$$-\sqrt{6x} \cdot 2\sqrt{12x^2}$$

$$-2 \cdot \sqrt{\cdot \cdot \cdot}$$

$\sqrt{\cdot} \cdot \sqrt{\cdot} \cdot \sqrt{\cdot}$

7) $2\sqrt{8} \cdot -3\sqrt{10}$

8) $\sqrt{5} \cdot 3\sqrt{3}$

Don't forget to
*Simplify $\sqrt{80}$!

11) (

$$\frac{5g^2h^{-3}}{10gh^4}$$

- ① Simplify $\frac{5}{10}$
 * ② Simplify g s
 ③ Simplify h s (Neg. exp. reciprocal!)

13) $\boxed{-4\sqrt{7}} - \boxed{5\sqrt{7}}$

$$-4 - 5 = \boxed{-9\sqrt{7}}$$

* Combine "like radicands."
 Since -4 & -5 have $\sqrt{7}$,
 you can combine the
 -4 & -5 as you see
 above.

15) $\boxed{4\sqrt{2}} + 2\sqrt{6} + \boxed{2\sqrt{2}}$

12) (

$$\frac{130x^0y^6}{12x^{-5}y^8}$$

* Zero exp = 1
 Neg exp = reciprocal

14) $\boxed{-2\sqrt{2}} - \boxed{4\sqrt{2}}$

16) $\boxed{4\sqrt{6}} - \boxed{4\sqrt{6}} - \boxed{3\sqrt{6}}$

17) $-3\sqrt{2} - 2\sqrt{2} - \sqrt{2}$

18) $5\sqrt{2} - 3\sqrt{2} - \sqrt{2}$

19) $-2\sqrt{32}$

$-4\sqrt{8}$

20) $2\sqrt{54} - \sqrt{6} - \sqrt{2}$

$$\begin{array}{c} \textcircled{-2} \sqrt{32} \\ \swarrow \searrow \\ \sqrt{16} \cdot \textcircled{\sqrt{2}} \\ \textcircled{4} \end{array}$$

$$\begin{array}{c} \textcircled{-4} \sqrt{8} \\ \swarrow \searrow \\ \sqrt{4} \cdot \textcircled{\sqrt{2}} \\ \textcircled{2} \end{array}$$

Multiply whole #s:

$$-2 \cdot 4 \cdot \sqrt{2} - 4 \cdot 2 \cdot \sqrt{2}$$

SIMPLIFY! ↑

HOMEWORK 64 - DUE WED.

21)

$$\frac{16b^{-6}c}{4b^0c^{-5}}$$

22)

$$\frac{20x^2y^{-5}}{30y^{-2}}$$

- ① simplify $\frac{16}{4}$
- ② b s... neg exp = reciprocal
zero exp = 1
- ③ c s

23) - Your grocery bill came out to \$54.50. If 10% sales tax was added. What was your total with the sales tax?

24) - You make \$50,000.00 a year; however a 15% tax is deducted from your salary. How much do you earn after tax?

- ① change % to decimal
- ② MULTIPLY.
- ③ Should you add % or subtract % from total? THINK!

29)

$$4\sqrt{48g^3}$$

30)

$$5\sqrt{2h} \cdot -3\sqrt{12h}$$

*Don't forget $\cdot 4$!

- ① multiply whole #s (stand alone)
- ② multiply radicands
- ③ SIMPLIFY!

NOTES

$$\sqrt{-1} = i$$

because you cannot take the square root of a negative.

$$(\sqrt{-1})^2 = (i)^2$$

$$-1 = i^2$$

SO... substitute "-1" for " i^2 "

EX: $2i^2$

$$2(-1) = \boxed{-2}$$

33) $(5i)(-5-i)$

$$5i(-5) = -25i$$

$$5i(-i) = -5i^2$$

$$-25i - 5i^2$$

$$-25i - 5(-1)$$

$$-25i + 5$$

$$\boxed{5 - 25i}$$

*Write final answer with real # in front.

34) $(i)(-1-4i)$

$$i(-1) =$$

$$i(-4i) =$$

35) $(2 + 8i)^2$ 2nd power... multiply by itself.

$$(2 + 8i)(2 + 8i)$$

F: $(2)(2) =$

O: $2(8i) =$

I: $8i(2) =$

L: $8i(8i) =$ *

* Remember, $i^2 = -1$

NOTES

EX: $3\sqrt{-12}$

$3 \cdot 2 = 6i\sqrt{3}$

$\sqrt{-1} \cdot \sqrt{12}$

$i \cdot \sqrt{4} \sqrt{3}$

$2 \cdot \sqrt{3}$

39) $-9\sqrt{-200}$

$-9 \cdot \sqrt{-1} \cdot \sqrt{200}$

$\downarrow \quad \downarrow \quad \sqrt{\quad} \sqrt{\quad}$

36) $(5 + 3i)(3 + 2i)$

40) $3\sqrt{-252}$